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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/491,299

01/25/2000

A.J. Paul Carew

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12/02/2005

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EXAMINER

PHUNKULH, BOB A

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. **09/491,299**Applicant(s) **CAREW ET AL.**Examiner **Bob A. Phunkulh**Art Unit **2661**

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 36-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-38, 40-49, 52-62 and 65-84 is/are rejected.
- 7) ☒ Claim(s) 38, 39, 50, 51, 63 and 64 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This communication is in response to applicant's 09/19/2005 amendment(s)/response(s) in the application of **CAREW et al.** for **"METHOD AND APPARATUS FOR PROVIDING VOICE SIGNALS TO AND FROM A TELECOMMUNICAITONS SWITCH"** filed 01/25/2000. The amendments/response to the claims have been entered. No claims have been canceled. No claims have been added. Claims 36-84 are now pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 36-38, 41-43, 45, 48-49, 53-56, 58, 61-62, 65, 67-70, 72, 75, 77-78, 80, 82-83 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith, Jr. (US 6,034,953).

Regarding claim 36, Smith discloses a system for supporting oversubscription, comprising:

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a telecommunications switch operable to assign a plurality of telephone numbers to a line, to receive an incoming call for one of the telephone numbers, and to communicate the incoming call associated with the telephone number using the line (a central office (not shown) in PSTN, see figure 1 and col. 9 lines 31-46); and

a voice gateway coupled to the telecommunications switch using the line, the voice gateway operable to receive the incoming call, to detect a unique distinctive ring assigned to the telephone number associated with the incoming call, and to communicate the incoming call according to the distinctive ring (HANC A 10 with functions as a router detect a unique distinctive ring assigned to the telephone number (a unique directory number) associated with the incoming call from the central office and communicate the incoming call according to the distinctive ring, see col. 9 lines 1-13 and figure 1).

Regarding claim 37, Smith discloses the voice gateway communicates the incoming call by processing the incoming call into digital packets according to the distinctive ring and communicating the digital packets to a customer premises interface for further communication to a customer premises (the caller telephone 20-B3 dials the DN of telephone (see col. 5 lines 65-67; and the HANC B converts the incoming calls into packets, see col. 3 lines 9-15, and communicate the call to the destination i.e. telephone 22-A(1-5) via the HANC A).

Regarding claim 41, the voice gateway is further operable to communicate the incoming call to a selected one of a plurality of output lines according to the distinctive ring (see figure 1 and col. 9 lines 1-21).

Regarding claim 42, Smith discloses the telecommunications switch is further operable to assign at least four telephone numbers to the line (as shown in figure 1 Smith's system provides 6:1 (5 telephones and 1 PC), see col. 2 lines 22-30).

Regarding claim 43, the voice gateway is further operable to receive an outgoing call originated at a customer premises, to identify an available line from a plurality of lines (ISDN BRI line 14, see figures 1-2) coupled between the telecommunications switch and the voice gateway, and to communicate the outgoing call to the telecommunications switch using the available line (the HANC 10 is equipped to a dynamic bandwidth controller to deliver calls from the local telephones to its destinations, see col. 2 lines 32-49).

Regarding claim 45, Smith discloses the plurality of lines is a hunt group (the connection between the central office in PSTN and the HANC 10 is ISDN BRI line, see col. 2 lines 11-31).

Regarding claim 48, Smith discloses a voice gateway (HANC 10) for supporting oversubscription of a line coupled to a telecommunications switch (central office in

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PSTN 12, see figures 1-2 and col. 3 lines 28-41), the voice gateway operable to receive a first incoming call with a first distinctive ring from the line and to communicate the first incoming call to a first destination according to the first distinctive ring, the voice gateway further operable to receive a second incoming call with a second distinctive ring from the line and to communicate the second incoming call to a second destination according to the second distinctive ring (see col. 9 lines 1-31).

Regarding claim 49, Smith discloses the voice gateway communicates the incoming call by processing the incoming call into digital packets according to the distinctive ring and communicating the digital packets to a customer premises interface for further communication to a customer premises (the caller telephone 20-B3 dials the DN of telephone (see col. 5 lines 65-67; and the HANC B converts the incoming calls into packets, see col. 3 lines 9-15, and communicate the call to the destination i.e. telephone 22-A(1-5) via the HANC A).

Regarding claim 53, Smith discloses the voice gateway is further operable to communicate the incoming call to a selected one of a plurality of output lines according to the distinctive ring (see figure 1 and col. 9 lines 1-21).

Regarding claim 54, Smith discloses the voice gateway receives the second incoming call after terminating the first incoming call (the HANC 10 support at least two concurrently active calls, if the other connection is for PC 16, the HANC 10 can only

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support one telephone call –thus telephone call must be disconnect first before accepting another call, see col. 3 lines 66 to col. 4 line 10).

Regarding claim 55, Smith discloses the voice gateway is further operable to support oversubscription of at least 4:1 (as shown in figure 1 Smith's system provides 6:1 (5 telephones and 1 PC), see col. 2 lines 22-30).

Regarding claim 56, the voice gateway is further operable to receive an outgoing call originated at a customer premises, to identify an available line from a plurality of lines (ISDN BRI line 14, see figures 1-2) coupled between the telecommunications switch and the voice gateway, and to communicate the outgoing call to the telecommunications switch using the available line (the HANC 10 is equips to a dynamic bandwidth controller to deliver calls from the local telephones to it destinations, see col. 2 lines 32-49).

Regarding claim 58, Smith discloses the plurality of lines is a hunt group (the connection between the central office in PSTN and the HANC 10 is ISDN BRI line, see col. 2 lines 11-31).

Regarding claim 61, Smith discloses a method for supporting oversubscription of a line coupled to a telecommunications switch, comprising:

receiving a first incoming call with a first distinctive ring from the line coupled to the telecommunication switch (the HANC 10 receives incoming call from the central office in PSTN via ISDN BRI link 14 with a distinctive ring (i.e. a unique directory number), see col. 9 lines 1-13);

communicating the first incoming call to a first destination according to the first distinctive ring;

receiving a second incoming call with a second distinctive ring from the line (the HANC 10 receives incoming call from the central office in PSTN via ISDN BRI link 14 with another distinctive ring (i.e. a unique directory number), see col. 9 lines 1-13);; and

communicating the second incoming call to a second destination according to the second distinctive ring.

Regarding claim 62, Smith discloses the voice gateway communicates the incoming call by processing the incoming call into digital packets according to the distinctive ring and communicating the digital packets to a customer premises interface for further communication to a customer premises (the caller telephone 20-B3 dials the DN of telephone (see col. 5 lines 65-67; and the HANC B converts the incoming calls into packets, see col. 3 lines 9-15, and communicate the call to the destination i.e. telephone 22-A(1-5) via the HANC A).

Regarding claim 65, Smith discloses communicating the digital packets to the customer premises further comprises communicating the digital packets to a customer

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premises interface for further communications to the customer premises (see col. 3 lines 24-26).

Regarding claim 67, Smith discloses the voice gateway is further operable to communicate the incoming call to a selected one of a plurality of output lines according to the distinctive ring (see figure 1 and col. 9 lines 1-21).

Regarding claim 68, Smith discloses terminating the first incoming call before receiving the second incoming call (the HANC 10 support at least two concurrently active calls, if the other connection is for PC 16, the HANC 10 can only support one telephone call –thus telephone call must be disconnect first before accepting another call, see col. 3 lines 66 to col. 4 line 10).

Regarding claim 69, Smith discloses the voice gateway is further operable to support oversubscription of at least 4:1 (as shown in figure 1 Smith's system provides 6:1 (5 telephones and 1 PC), see col. 2 lines 22-30).

Regarding claim 70, Smith discloses the voice gateway is further operable to receive an outgoing call originated at a customer premises, to identify an available line from a plurality of lines (ISDN BRI line 14, see figures 1-2) coupled between the telecommunications switch and the voice gateway, and to communicate the outgoing call to the telecommunications switch using the available line (the HANC 10 is equips to

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a dynamic bandwidth controller to deliver calls from the local telephones to it destinations, see col. 2 lines 32-49).

Regarding claim 72, Smith discloses the plurality of lines is a hunt group (the connection between the central office in PSTN and the HANC 10 is ISDN BRI line, see col. 2 lines 11-31).

Regarding claims 75 and 80, Smith discloses a voice gateway (HANC A, see figure 1) for supporting oversubscription of a plurality of unbundled lines (ISDN lines, see col. 1 lines 24-47) coupled to a telecommunications switch (a central office (not shown) in PSTN, see figure 1 and col. 9 lines 31-46), the voice gateway operable to receive digital packets into a voice signal (see col. 2 line 41-49), to identify an available unbundled line from the plurality of unbundled lines (the HANC 10 functions as both a router and a dynamic bandwidth controller, see col. 2 lines 31-33), and to communicate the voice signal to the telecommunication switch using the available unbundled line, wherein a number of customer premises devices (phones, PC) is greater than a number of unbundled lines (see col. 2 lines 32-48).

Regarding claims 77, and 82, Smith discloses plurality of unbundled lines is a hunt group (ISDN line group, see col. 1 lines 24-47 and figure 1).

Regarding claims 78 and 83, Smith discloses the unbundled lines are ISDN BRI lines (see col. 2 lines 18-22).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 40, 42, 52, 66, are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Lund (US 5,949,763).

Regarding claims 40, 42, 52, 66, Smith fails to explicitly disclose that the customer premises interface is a Digital Subscriber Line Access Multiplexer (DSLAM) operable to communicate the digital packets over a twisted pair in a local loop using a digital subscriber line or .

Lund, on the other hand, discloses the central office 20 comprises of DSLAM operable to communicate packets over twisted pair in the local loop using the digital subscriber line (see figure 2).

Therefore, it would have been obvious to one having ordinary skilled in the art at the time of invention was made to provides the teaching of Lund in the system taught by Smith in order to provide voice and data services over the existing twisted pairs.

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Claims 44, 57, 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith.

Regarding claim 44, 57, 71, Smith fails to explicitly disclose the voice gateway communicates the outgoing call by receiving in digital packets, and communicating the voice signal (i.e. analog) to the telecommunications switch using the available line.

Smith's HANC is connected to the computer 16 via interface 18 and receiving digitized packets (Ethernet or TCP packet, see col. 3 lines 23-48) and the packets are communicate over the link 14 ISDN BRI.

It would have been obvious to one having ordinary skill in the art at the time of invention was made to replace Smith's link 14 ISDN BRI with analog link (i.e. twisted pair) without modifying the Smith's configuration for ISDN connections are not easy to set up and running while twisted pair connections are easy to set up and widely used.

Claims 46-47, 59-60, 73-74, are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Pelletier et al. (US 6,411,704), hereinafter Pelletier.

Regarding claims 46-47, 59-60, 73-74, Smith fails to explicitly disclose that the Central Office (CO) is class 5 switch.

Pelletier, on the other hand, the CO switch can be implemented using a commercially available telecommunication switch, such as the 5ESS (see col. 6 lines 56-60).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made implement the teaching of Pelletier in the system taught

by Smith for 5ESS switch is commercially available telecommunication switch and widely used switch in central offices.

Claims 76, and 81, are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Lund (US 5,949,763).

Regarding claims 76, 81 Smith fails to explicitly disclose that the customer premises interface is a Digital Subscriber Line Access Multiplexer (DSLAM) operable to communicate the digital packets over a twisted pair in a local loop using a digital subscriber line.

Lund, on the other hand, discloses the central office 20 comprises of DSLAM operable to communicate packets over twisted pair in the local loop using the digital subscriber line (see figure 2).

Therefore, it would have been obvious to one having ordinary skilled in the art at the time of invention was made to provides the teaching of Lund in the system taught by Smith in order to provide voice and data services over the existing twisted pairs.

Claims 79 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith in view of Pelletier et al. (US 6,411,704), hereinafter Pelletier.

Regarding claims 79 and 84, Smith fails to explicitly disclose that the Central Office (CO) is class 5 switch.

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Pelletier, on the other hand, the CO switch can be implemented using a commercially available telecommunication switch, such as the 5ESS (see col. 6 lines 56-60).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made implement the teaching of Pelletier in the system taught by Smith for 5ESS switch is commercially available telecommunication switch and widely used switch in central offices.

Allowable Subject Matter

Claims 38-39, 50-51, 63-64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 9/19/2005 have been fully considered but they are not persuasive.

In response to the applicant's argument of claim 36 in pages 15 and 16, Smith Jr. disclose the "HANC 10 represents the subscriber telephone equipment to the PSTN 12 and functions as both a router and a dynamic bandwidth controller," see col. 2 lines 32-34. In col. 9 lines 32-34 Smith Jr. disclose "the HANC system that supports the attachment of up to five POTS telephones by a signal telephone line, yet permits each to converse independently of the others." In col. 9 lines 7-13 Smith further discloses

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that "Each DN is identified by its own pattern of long rings, short rings or variably spaced longs and shorts. The HANC 10 maintains the association between the DNs and corresponding distinctive ring patterns, and it selects the appropriate pattern for an incoming call according to the dialed DN received over the data channel from the switch." Therefore Smith disclose HANC which functions as a router route incoming call according to DN and corresponding distinctive ring patterns.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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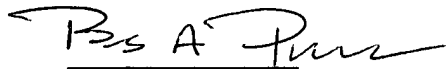
Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Bob A. Phunkulh** whose telephone number is **(571) 272-3083**. The examiner can normally be reached on Monday-Tuesday from 8:00 A.M. to 5:00 P.M. (first week of the bi-week) and Monday-Friday (for second week of the bi-week).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor **Chau Nguyen**, can be reach on **(571) 272-3126**. The fax phone number for this group is **(703) 872-9306**.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bob A. Phunkulh



**BOB PHUNKULH
PRIMARY EXAMINER**

*TC 2600
Art Unit 2661
November 29, 2005*